

Work Order ID 56243

Wednesday, February 17, 2010 10:07:10 AM



Page 1

Item ID: D3391-015

Accept



Setup Start



Revision ID:

Stop



Item Name: Aft Tube Assembly

Start Date: 2/18/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 3/3/2010 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: MF

Date: 10-2-17

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3391

Rev H

100



Mori Seiki

Mori Seiki CNC Lathe Large

MORI SEIKI CNC LATHE LARGE

0.00

Memo

0.00

Turn as per Folio FA599 Rev: AA & Dwg D3391 Rev: H

① & AWM / MB 10-02-25

110



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

① & MB 10-02-25

120



HAAS I

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

0.00

Memo

0.00

1-Machine as per Folio FA 599 Rev: AA & Dwg D3391 Rev: H
2-Debur

8.8 10/03/06

①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-015 PAR #: _____ Fault Category: Skid like NCR: Yes No DQA: _____ Date: 10/03/09
 Resolution: Accepted Disposition: use as is QA: N/C Closed: _____ Date: 10/03/20

NCR: <u>56243</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10/3/11	120	taper length is short 43.00" in length Should be 44.995"	CP 10.03.01 per QSI 042	PART IS STRONGER - OK PART IS 0.5lb Heavier, acceptable	AWM MF 10-3-2	mf 10/03/04	CP 10.03.01 per QSI 042	S 10/03/01
10.03.08	120	Dim 1.526 \pm 0.03 is 1.528.	CP 10.03.08 per QSI 042	Dim OK BASED ON MEASUREMENT OF WD. Tube halves can flex.	mf 10/03/09	S 10/03/09	CP 10.03.08 per QSI 042	S 10/03/09
10.03.08	120	Holes off center by as much as 0.024"	CP 10.03.08 per QSI 042	Acceptable if assembly OK	mf 10/03/09	S 10/03/09	CP 10.03.08 per QSI 042	S 10/03/09

NOTE: Date & initial all entries

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Required Date: 3/3/2010 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

Just 10-03-09

(14) 2 MB 10-02-25

1 1

140

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

mr 10/03/09

01 1

150

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803

DP

10-3-9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



CNC Bend 1

BENDING MACHINE - SKIDTUBES

0.00

CNC Delta 100 Bender

Memo

Form as per Dwg D3391

0.00

DP 10-3-9

170



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

P 10.03.09

P107

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-015 PAR #: _____ Fault Category: Skid tubes NCR: Yes No DQA: _____ Date: 10/03/19
 Resolution: Accepted Disposition: use as is QA: N/C Closed: _____ Date: 10/03/20

NCR: <u>56243</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>10.03.09</u>	<u>160</u>	<u>Height is 4.58".</u> <u>Draw allows 4.45" max.</u> <u>RC: Process / Bending.</u>	<u>CP</u> <u>10.03.09</u> <u>per</u> <u>QSI drz</u>	<u>Acceptable.</u> <u>Increase drag moment but</u> <u>works against bending load.</u> <u>Bayancy</u>	<u>[Signature]</u> <u>10-3-9</u>	<u>S</u> <u>10/03/10</u>	<u>CP</u> <u>10.03.09</u> <u>per</u> <u>QSI drz</u>	<u>S</u> <u>10/03/10</u>

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Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill Tube as per D3391 using DT8808 (ALL HOLES)

3-Drill and c'bore wearshoe holes as per Dwg *****ensure wall thickness after c'bore is no less than 0.051*****

4- open hole for float bag to 3.25"
4-C'sink holes for float bag (4 holes per side) as per Dwg D3391
Deburr

5- Transfer holes from D3391-013 for electric step in tube

190



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

S. 10/3/10

@

10-310

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
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Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

200

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

1 11/10/3/10

210

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Install crossbolt spacers per dwg D3391
A/R Magnabond 6398 batch: M112417

2- Grind flush

Exp. 11/1/30

1 11/10/3/10

220

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Subs

⑩

PTO =>

W/O: 56243		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/03/11	221	Reallocate as per PAR 09-043 + pressure wash	gld	10/03/11	(X1)		S 10/03/12

Part No: D3391-015 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

230



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Memo

START TIME: 8:30 AM
OVEN TEMPERATURE: 370°
FINISH TIME: 9:00 AM

0.00

=> M 10/03/11

(X) /

240



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

BR 10-3-11

①

250



HandFinish

Hand Finishing

HandFinishing

0.00

Memo

1-Install inserts per dwg D3391

2-Install Aft Cap as per Dwg D3391

A/R Sikaflex-241/-291 112345
Sikaflex expiry date: 10/08

0.00

BR 10-3-11

①

W/O:		WORK ORDER CHANGES					
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Reference:

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Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

260



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

S100312



270



Packaging

Packaging

Identify as per dwg & Stock Location:

B37506A

0.00

Memo

0.00

10/03/16

280



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

10/03/16
MF 10-3-92

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

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Page 1

Work Order ID: 56243

Parent Item: D3391-015

Parent Item Name: Aft Tube Assembly

Comments: IPP rev A 05.12.13 New issue EC
IPP rev B 06.02.09 Dwg @ revD EC
IPP rev C 07.03.13 dwg @revF ec
IPP rev D 07.10.31 ecn 1053P EC

Start Date: 2/18/2010

Required Date: 3/3/2010

Start Qty: 1.00

Required Qty: 1.00

AN960C10L

Purchased

No

100

Each

388.0000

10.0000



washer

NAS 1149C0332R

Warehouse

Loc Qty

Loc Code

Location

OFFSHORE

FG

113691

100

103585

100

Main Warehouse

ST

288

112116

128

112612

160

10. BL 10-3-12

D6014-090

Manufactured

No

210

Each

14.0000

1.0000



ALUMINUM EXTRUSION

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

LG

14

42768

14

250

Each

1,908.000

14.0000

ALS4-1032-130

Purchased

No



Insert

14 MB 10-02-23

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1908

110511 ✓

1908

14. BL 10-3-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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 IPP rev B 06.02.09 Dwg @ revD EC
 IPP rev C 07.03.13 dwg @ revF ec
 IPP rev D 07.10.31 ecn 1053P EC

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

250

Each

6,296.000

12.0000



Insert

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	6296	
107441	16	
110768 ✓	6280	

ALS4-428-165

Purchased

No

250

Each

36.0000

4.0000



Inserts

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	36	
6989 ✓	36	

12. PR 10-3-12

4. PR 10-3-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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 IPP rev D 07.10.31 ecn 1053P EC

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

250

Each

1,213.000 6.0000



BOLT

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST 114103	1213	
112314	13	
112720	12	
112724	3	
112829	1	
112991	2	
113121	64	
113226	344	
113422	84	
113644	490	
113749	200	

6 10-3-12

AN3C5A

Purchased

No

250

Each

559.0000 4.0000



Bolt

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	559	
111424	8	
111707	69	
112314	1	
113121	201	
113149 ✓	274	
113644	6	

7 10-3-12

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Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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 IPP rev D 07.10.31 ecn 1053P EC

Start Qty: 1.00

Required Qty: 1.00

D2646 Manufactured No 250 Each 55.0000 1.0000



Aft Cap

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
FP6	29	
52663	29	
Main Warehouse		
fp7	13	
52663	13	
Main Warehouse		
ST	13	
46327	4	
48109	9	

1 Bl 10-3-12

D3537-1 Manufactured No 250 Each 153.0000 1.0000



Wearpad

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
* FP 38941	74	
48288	2	
55465	72	
Main Warehouse		
FP17	79	
51678	1	
51679	78	

1 Bl 10-3-12

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 IPP rev C 07.03.13 dwg @revF ec
 IPP rev D 07.10.31 ecn 1053P EC

Start Qty: 1.00

Required Qty: 1.00

D3537-7 Manufactured No

250 Each 17.0000 1.0000



Wearpad



Warehouse	Location	Loc Qty	Loc Code
-----------	----------	---------	----------

Main Warehouse

ST	33067	17	
	45408	6	
	46346	11	

1 pk 10-3-12

D3553-1 Manufactured No

250 Each 12.0000 1.0000



Gasket



Warehouse	Location	Loc Qty	Loc Code
-----------	----------	---------	----------

Main Warehouse

ST	33868	12	
	33868	12	

1 pk 10-3-12

W/O:		WORK ORDER CHANGES					
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 IPP rev C 07.03.13 dwg @ revF ec
 IPP rev D 07.10.31 ecn 1053P EC

Start Qty: 1.00

Required Qty: 1.00

D3553-3 Manufactured No

250 Each 61.0000 1.0000



Gasket

Warehouse	Loc Qty	Loc Code
Location		

Main Warehouse

FP 60

53480 ✓ 60

Main Warehouse

ST 1

47206 1

D3670-4-200 Manufactured No

250 Each 95.0000 14.0000



SPACER

Warehouse	Loc Qty	Loc Code
Location		

Main Warehouse

ST 95

48198 10

48269 85

1 BR 10-3-12

14 NO/3/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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 IPP rev B 06.02.09 Dwg @ revD EC
 IPP rev C 07.03.13 dwg @revF ec
 IPP rev D 07.10.31 ecn 1053P EC

Start Qty: 1.00

Required Qty: 1.00

D3672-1 Manufactured No

250

Each

1,700.000 2.0000



Phenolic Washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	1200	
39275	19	
42329	5	
47628 ✓	176	
52505	1000	
Main Warehouse		
ST117	500	
51674	500	

2 BL 103-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: <u>B-56243</u>
Description: Float Skidtube (412)		Part Number: D3391-3
Inspection Dwg: D3391	Rev: H	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.00	✓			
3.500	+/-0.010	3.501	✓			
88.93	+/-0.030	88.94	✓			
44.995	+/-0.030					see NCR in PG 1.
Ø3.200	+/-0.010	3.199	✓			
88.93	+/-0.030	88.94	✓			
Ø3.750	+/-0.010	3.750	✓			
30° x 160" chamfer	+/-0.010	30° X 160"	✓			

Measured by: MB/AWM **Date:** 10-02-25

Audited by: **Date:**

HAAS Section						
1.526	+0.000/-0.030	1.528	✓			
7.500	+/-0.010	7.500	✓			
27.750	+/-0.010	27.750	✓			
31.750	+/-0.010	31.75	✓			
35.250	+/-0.010	35.25	✓			
3.300	+/-0.010	3.290	✓			
0.200	+/-0.010	3.501 .200	✓			
3.520	+/-0.010	3.521	✓			
0.687	+0.010/-0.000	.68	✓			
R0.062	+/-0.010	.062	✓			
Ø0.484	+0.005/-0.001	.487	✓			

Measured by: MB **Date:** 10-02-25 10/03/06

Audited by: MB **Date:** 10/03/09

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	

15-00

15-00

15-00

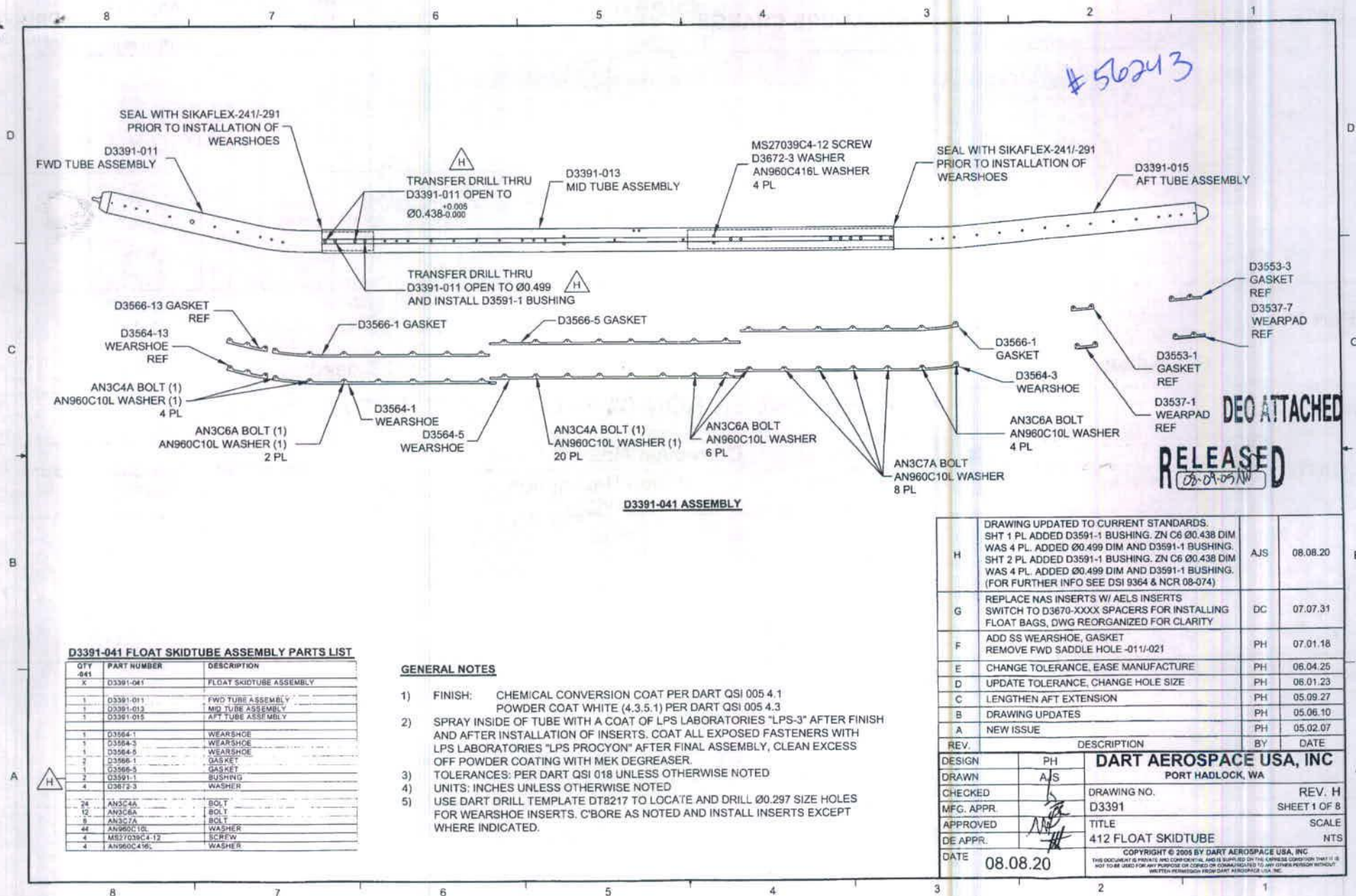
15-00
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#56243



D3391-041 ASSEMBLY

D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
1	D3391-041	FLOAT SKIDTUBE ASSEMBLY
1	D3391-011	FWD TUBE ASSEMBLY
1	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
1	D3566-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
2	D3591-1	BUSHING
4	D3672-3	WASHER
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER
4	MS27039C4-12	SCREW
4	AN960C416L	WASHER

GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.

H	DRAWING UPDATED TO CURRENT STANDARDS. SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. (FOR FURTHER INFO SEE DSI 9364 & NCR 08-074)	AJS	08.08.20
G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS, DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/-021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO. D3391	REV. H
MFG. APPR.			SHEET 1 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	08.08.20	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED BY THE EXPRESS COMPANY THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

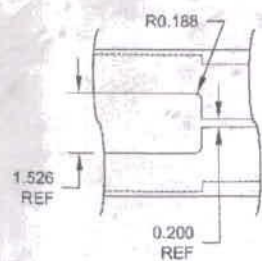
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

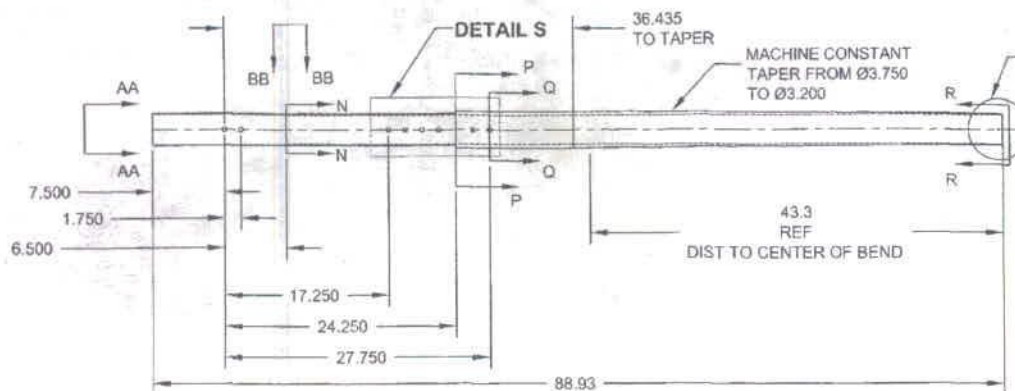
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

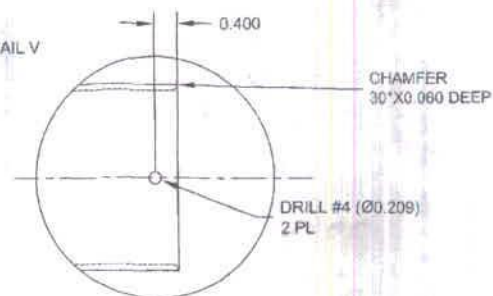
NOTE: Date & initial all entries



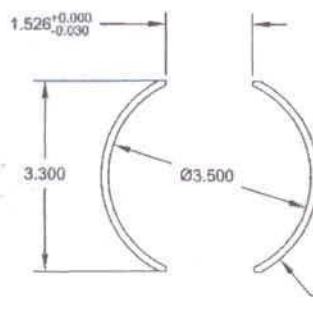
VIEW BB-BB
SCALE 4X



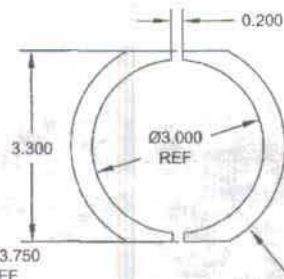
D3391-3 AFT DRILLING AND CUTTING DETAIL
(MAKE FROM D6014-090 SKIDTUBE MATERIAL)



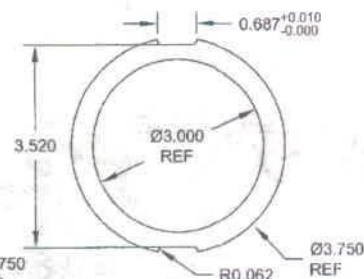
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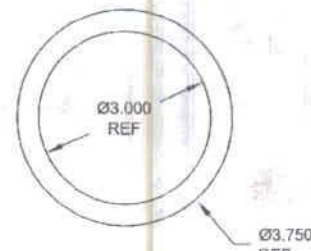
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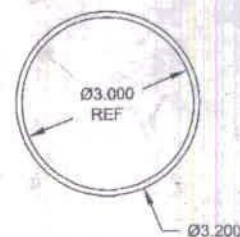
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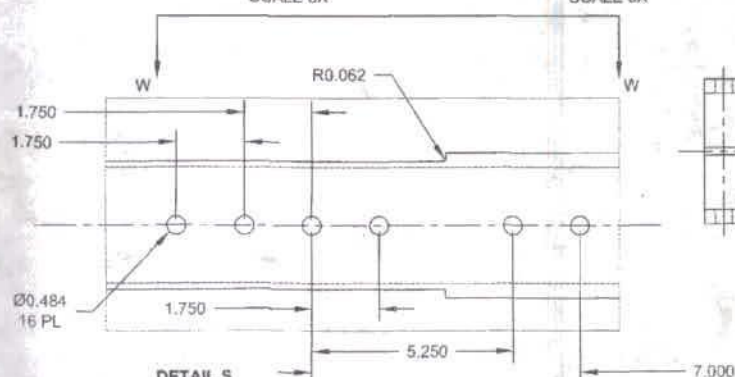
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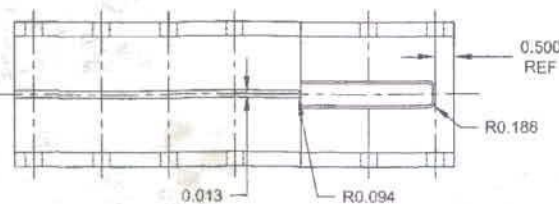
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SCALE 6X



SECTION R-R
SCALE 6X



DETAIL S
SCALE 4X

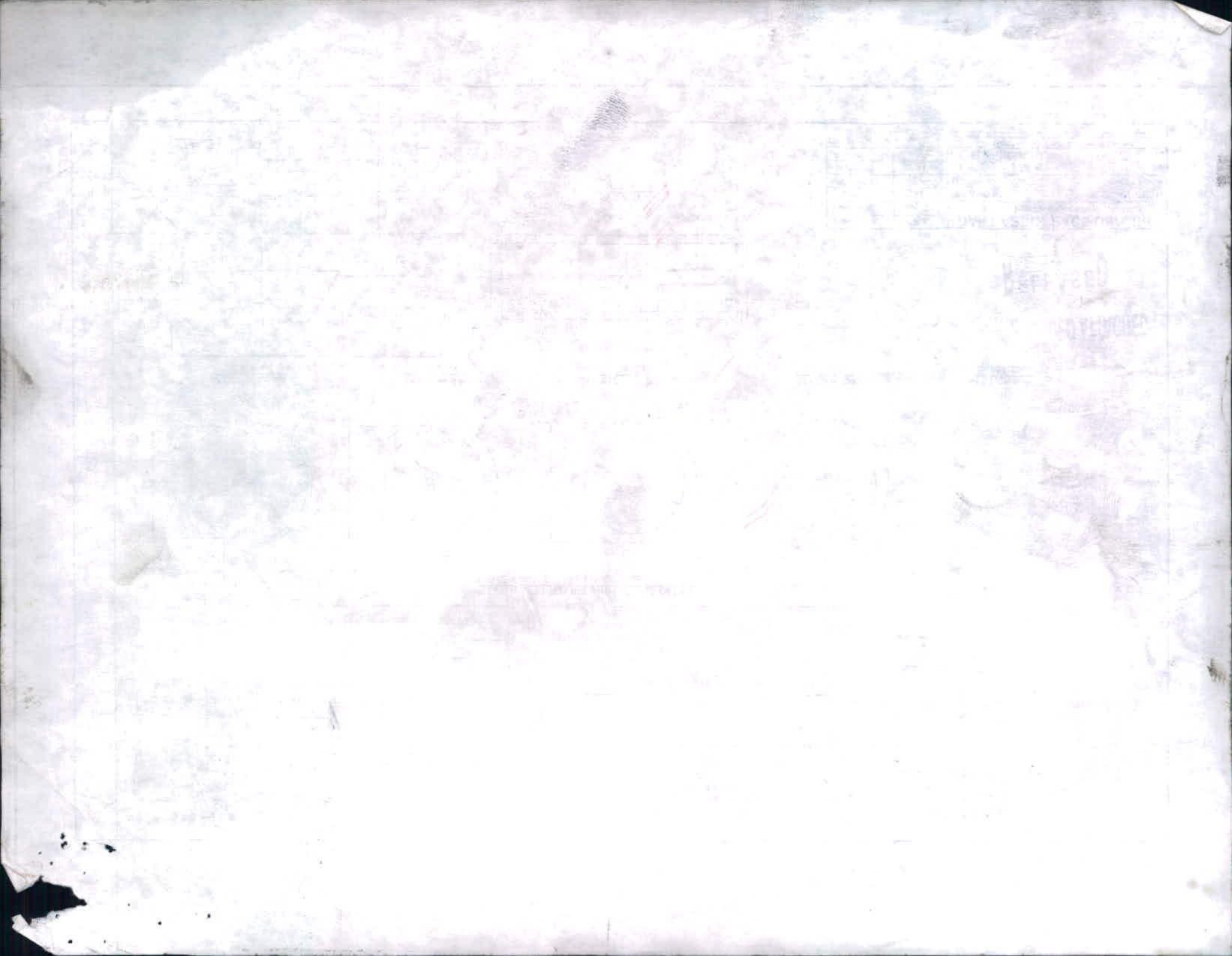


VIEW W-W
SCALE 4X

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AUS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 7 OF 8
APPROVED		TITLE	SCALE
DE APPR		412 FLOAT SKIDTUBE	NTS
DATE	08.08.20	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE USA, INC.	

B-56243

DEO ATTACHED
RELEASED
29 JAN 1995



D3391-015 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)

INSTALL D3670-4200 SPACER
SEAL WITH MAGNOBOND 6398
GRIND FLUSH
PRIOR TO PAINTING
14 PL

D3391-015 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)

D3391-015/-025 AFT TUBE ASSEMBLY PARTS LIST

QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X		D3391-015	AFT TUBE ASSEMBLY
	X	D3391-025	AFT TUBE ASSEMBLY
1	1	D6014-090	AFT TUBE
1	1	D2646	AFT CAP
1	1	D3537-1	WEARPAD
1	1	D3537-7	WEARPAD
1	1	D3553-1	GASKET
1	1	D3553-3	GASKET
14	4	D3670-4200	SPACER
2	2	D3672-1	WASHER
14	14	AELS-1032-130	INSERT
12	12	AELS-1032-225	INSERT
4		ALS4-428-165	INSERT
6	6	AN3C4A	BOLT
4	4	AN3C5A	BOLT
10	10	AN960C10L	WASHER

D3391-025 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)

INSTALL D3670-4200 SPACER
SEAL WITH MAGNOBOND 6398
GRIND FLUSH
PRIOR TO PAINTING
4 PL

D3391-025 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)

DART AEROSPACE USA, INC
PORT HADLOCK, WA

DESIGN PH
DRAWN AS
CHECKED *[Signature]*
MFG APPR *[Signature]*
APPROVED *[Signature]*
DE APPR *[Signature]*
DATE 08.08.20

DART AEROSPACE USA, INC
PORT HADLOCK, WA

DRAWING NO. D3391
TITLE 412 FLOAT SKIDTUBE
SCALE NTS

REV. H
SHEET 8 OF 8

RELEASED
08-09-05-10

DEO ATTACHED

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DRAWING NO. D3391	TITLE 412 FLOAT SKIDTUBE	REV. H	DART AEROSPACE USA, INC ENGINEERING ORDER		D.E.O. NO. D3391-H-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN UP	CHECKED h	MFG. APPR. M	APPROVED MP		DE APPR. H		
DATE 09.09.23	DATE 04.04.24	DATE 09/09/25	DATE 09/09/30		DATE 09/09/30		

PURPOSE:

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF D3391-041/-043 SKIDTUBES.

CHANGE:

AMEND NOTE 2 OF D3391-041/-043 SKIDTUBE ASSEMBLIES (ZN A6-1, A6-2) AS FOLLOWS:

- 2) ~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH~~
~~AND AFTER INSTALLATION OF INSERTS.~~ COAT ALL EXPOSED FASTENERS WITH
 LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS
 OFF POWDER COATING WITH MEK DEGREASER.

RELEASED
 2010-02-02

MP

#56243

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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